

Remarks

The present application has been reviewed in light of the non-final Office Action dated April 28, 2011. By the foregoing amendments, claims 1-5 were cancelled, and new claims 6-13 added in lieu of the cancelled claims.

No new matter is added by the amendments, and supports for the amendments can be found from throughout the specification, drawings, and claims as originally filed. For example, supports for new independent claim 6 can be found from FIGS. 1-13 along with associated descriptions thereof. In addition, supports for new independent claim 11 can be found from, for example, FIGS. 7, 8, 11, and 13, along with associated descriptions thereof, and supports for new independent claim 13 can be found from, for example, FIGS. 2, 3, 10, 11, and 12, along with associated descriptions thereof.

Objection to Abstract

The Abstract of the disclosure is objected to because it contains more than 150 words.

By the foregoing amendments, the Abstract was amended to correct this informality and also to present the invention more distinctly. Reconsideration is respectfully requested.

Claim Rejections under 35 USC §112

Claims 1, 2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Claims 1-5 were cancelled by the amendments, and thus, the rejections are deemed moot. Applicant further submits that new claims 6-13 are in condition

satisfying the requirements under 35 U.S.C. 112, second paragraph. Reconsideration is respectfully requested.

Claim Rejections under 35 USC §103

Claims 1-5 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Hall et al. (US 6,422,413, hereinafter "Hall") in view of Lawrence (US 5,540,975), Rogers (US 5,430,927) and Tada et al. (JP 56-125890, hereinafter "Tada").

Claims 1-5 were cancelled by the amendments, and thus, the rejections are deemed moot. Applicant further submits that new claims 6-13 are patentable over the references of record and in condition for allowance. Reconsideration is respectfully requested in view of the amendments and following remarks.

Claims 6-10

Newly introduced claims 6-10 present the subject matter of the invention more distinctly. Accordingly, the present invention as claimed in claims 6-10 is directed to a liquid tank or reservoir, and as specifically recited in the independent claim 6, each of the claims requires the following recited features (*with Emphases added*):

- (a) a foundation plate;
- (b) a tank body having a bottom surface, a ceiling surface, and side surfaces, the bottom surface and the ceiling surface of the tank body constructed with a plurality of first unit panels coupled together, and the side surfaces of the tank body constructed with a plurality of second unit panels coupled together;
- (c) wherein the first unit panels forming the bottom surface of the tank body are disposed on the foundation plate;
- (d) wherein each of said first unit panels has a layered structure with a first layer of polyethylene disposed to an inner surface of the tank body, a second layer of

galvanized iron plate secured on an outer surface of the first polyethylene layer, and a third layer of thermal insulation layer made of foamed urethane on an outer surface of the second layer of galvanized iron plate;

(e) wherein each of said second unit panels has a layered structure with a first layer of polyethylene disposed to an inner surface of the tank body, a second layer of galvanized iron plate secured on an outer surface of the first polyethylene layer, and a third layer of thermal insulation layer made of foamed urethane on an outer surface of the second layer of galvanized iron plate, and a fourth layer of painted color steel plate on an outer surface of the third layer of foamed urethane;

(f) wherein each of said first and second unit panels has edge portions each bent and extending outwardly from the unit panel, the edge portions of the first unit panels having said layered structure with said first layer of polyethylene, said second layer of galvanized iron plate, and said third layer of foamed urethane, and the edge portions of the second unit panels having said layered structure with said first layer of polyethylene, said second layer of galvanized iron plate, said third layer of foamed urethane, and said fourth layer of painted color steel plate;

(g) an inlet pipe communicating with an upper portion of the tank body;

(h) an outlet pipe communicating with a lower portion of the tank body;

(i) a plurality of stay reinforcement members, each of the stay reinforcement members having a first end attached to a corner area of neighboring stay reinforcement members of the bottom surface of the tank body, and a second end attached to a corner area of neighboring stay reinforcement members of the ceiling surface of the tank body, the attachment area of said first end located at opposing location from that of said second end;

(j) a plurality of beam reinforcement members, each of the beam reinforcement members having a first end attached to a corner area of neighboring beam reinforcement members of one of the side surfaces of the tank body, and a second end attached to a

corner area of neighboring beam reinforcement members of another side surface of the tank body, the attachment area of said first end located at opposing location from that of said second end; and

(k) a plurality of securing means provided to secure said edge portions of neighboring unit panels of the tank body, each of said securing means including a securing screw for penetrating and securing said edge portions of neighboring unit panels, and a nut secured at an end of the securing screw.

Applicant respectfully submits that the alleged combination of references of record (namely, Hall, Lawrence, Rogers, and Tada, etc.) fails to disclose or teach, among others, at least the above highlighted features of claims 6-10. Accordingly, reconsideration is respectfully requested.

Claims 11-12

The invention as claimed in claims 11-12 is directed to a unit panel for a liquid tank, and as specifically recited in the new independent claim 11, each of the claims requires the following recited features (*with Emphases added*):

(i) a first layer of polyethylene, the first layer having a generally C-shaped cross-section with an upper surface portion, a side surface portion extending vertically from side edges of the upper surface portion, and a lower surface portion extending vertically from side edges of the side surface portion and in generally parallel with the upper surface portion to form a terminal lower edge surface of the unit panel;

(ii) a second layer of thermal insulation layer made of foamed urethane, the second layer disposed to an inner space defined by the upper, side, and lower surface portions of the generally C-shaped first layer;

(iii) a third layer of painted color steel plate, the third layer having a generally C-shaped cross-section with an upper surface portion and a side surface portion extending

vertically from side edges of the upper surface portion, wherein a terminal end of the side surface portion of the third layer is affixed to a terminal end of the lower surface portion of the first layer such that the second layer of insulation layer is secured in the space defined between the first and third layers and not exposed externally, and wherein the upper and side surface portions of the first, second, and third layers of the unit panel include a plurality of securing holes formed there-through; and

(iv) a plurality of tubular engagement members made of rigid material, the engagement members coupled in at least some of the securing holes of the upper and side surface portions of the first, second, and third layers, each tubular engagement member having a circular through hole formed there-through, wherein at least some of the through holes of the tubular engagement members are sealed with polyethylene filed therein.

Applicant respectfully submits that the alleged combination of references of record (namely, Hall, Lawrence, Rogers, and Tada, etc.) fails to disclose or teach, among others, at least the above highlighted features of claims 11-12. Accordingly, reconsideration is respectfully requested.

Claim 13

The invention as claimed in claim 13 is directed to a unit panel for a liquid tank, and claim 12 requires the following recited features (*with Emphases added*):

(A) a first layer of polyethylene, the first layer having a generally C-shaped cross-section with an upper surface portion, a side surface portion extending vertically from side edges of the upper surface portion, and a lower surface portion extending vertically from side edges of the side surface portion and in generally parallel with the upper surface portion to form a terminal lower edge surface of the unit panel;

(B) a second layer of galvanized iron plate having a surface contour substantially the same as that of the first layer and secured on an inner face surface of the first polyethylene layer;

(C) a third layer of thermal insulation layer made of foamed urethane, the third layer secured on an inner face surface of the second layer (i.e, the galvanized iron plate layer) opposite to the surface on which the first layer are secured;

(D) wherein the unit panel further comprises a plurality of securing holes formed there-through; and

(E) wherein the unit panel further comprises a plurality of tubular engagement members made of rigid material, the engagement members coupled in at least some or all of the securing holes of the unit panel, each tubular engagement member having a circular through hole formed there-through, wherein at least some or all of the through holes of the tubular engagement members are sealed with polyethylene filed therein.

Applicant respectfully submits that the alleged combination of references of record (namely, Hall, Lawrence, Rogers, and Tada, etc.) fails to disclose or teach, among others, at least the above highlighted features of claim 13. Accordingly, reconsideration is respectfully requested.

CONCLUSION

As detailed above, Applicant respectfully submits that the references of record, either alone or in combination with others, fail to teach each and every limitation of the claims as identified above and combination thereof as recited. In view of the foregoing amendments and remarks, Applicant respectfully submit that all of the claims currently pending in this application, namely claims 6-13, are patentable over the references of record and in condition for allowance. Favorable reconsideration and early notice to that effect is earnestly solicited.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is **invited** to telephone the undersigned at the number provided below.

Respectfully submitted,



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